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TITLE: STEEL FOR INDUCTION HARDENING EXCELLENT IN HIGH BEARING FATIGUE STRENGTH

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INVENTOR-INFORMATION:

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ABSTRACT:

PURPOSE: To produce a steel for induction hardening excellent in high bearing fatigue strength.

CONSTITUTION: This steel for induction hardening excellent in high bearing fatigue strength is characterized by subjecting a steel in which the contents of alloy elements are regulated to, by mass, 0.40 to 0.80% C, 0.3 to 3.0% Si, 0.35 to 1.5% Mn, 0.10 to 3.0% Cr and 0.05 to 0.50% V, and the balance Fe with inevitable impurities to induction hardening in the temp. range of 950 to 1150°C surface temp. and thereafter cooling the same in the temp. range from the heating temp. to 200°C at 10 to 50°C/s rate. Moreover, this steel may contain one or two kinds among 0.3 to 3.0% Ni, 0.1 to 1.0% Mo, 0.01 to 0.10% Nb, 0.0005 to 0.0050% B, 0.02 to 0.20% S, 0.02 to 0.20% Te and 0.0050% Ca as well.

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